

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte Dettinger et al.

Appeal No. _____

Serial No.: 09/871,929
Filed: June 1, 2001
Group Art Unit: 2145
Examiner: Adnan M. Mirza
Applicant: Dettinger et al.
Title: PERVASIVE, DISTRIBUTED PROVISION OF
SERVICES SUCH AS PRODUCT BROKERAGE

Cincinnati, Ohio 45202

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Via EFS-WEB

APPEAL BRIEF

This brief is in furtherance of Applicant's Notice of Reinstated Appeal filed March 23, 2007, appealing the decision of the Examiner dated December 23, 2006 reopening prosecution and rejecting claims 1-64. A copy of the claims appears in the Appendix to this brief.

Certificate of Electronic Transmission

I hereby certify that this correspondence and any enclosures are being electronically transmitted via EFS-WEB on the date indicated below.

/Thomas W. Humphrey/ May 14, 2007
Thomas W. Humphrey Date
Reg. No. 34,353

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Real Party In Interest

The real party in interest in this appeal is INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York having a place of business at New Orchard Road, Armonk, New York 10504.

Related Appeals and Interferences

There are no such appeals or interferences.

Status of Claims

Claims 15, 34, 49 and 62 stand rejected under 35 U.S.C. §101 based upon the Examiner's assertion that a "program product is not tangible because it is software per se".

Claims 1-64 stand rejected as unpatentable over Taylor et al. combined with Kikuchi et al.

Claims 1-64 were originally filed with the application and have not been amended. (NOTE: The Examiner's action states in the summary that claims "1-69" are rejected but there are only 64 claims and rejections have been specifically identified for only claims 1-64.)

Status of Amendments

There are no amendments pending.

Summary of Claimed Subject Matter

The present invention is directed to the provision of a service from a server computer, such as seen at 12 in Fig. 1, to a client computer, such as seen at 16a-16e in Fig. 1. As is notable from Fig. 1, the client may have different capabilities or management needs. The method involves delivering appropriate executable code from a server to the client, and/or relates to the execution of appropriate code by the server. The method further involves management of executable code by the client.

Independent claims 1, 12 and 15 relate to a method in which a server will "identify[] factors relevant to provision of [an] information handling capability by [a] client computer", then the server will "select[] one of at least a first and a second service to be uploaded" (the services "comprising different executable code"), and finally, the server will "deliver[the] selected service to [the] client computer". These operations are disclosed in Fig. 2 at steps 70, 72 and 74 (described in pages 11-12 et seq.). The following steps involve the actual delivery of a service to a client based upon the "client factors" determined in step 72. These claims are presented in method, apparatus and program product form, and do not include "means" language elements.

Independent claims 20, 31 and 34 relate to "performing an analysis of usage of said information handling capability by said client computer system to determine whether said executable code ought to be retained in storage...". This process is illustrated in Fig. 4, steps 144 and 146 and discussed at page 16. This analysis enables the client to maintain only that downloaded software likely to be of future use. These claims are presented in method, apparatus and program product form, and do not include "means" language elements.

Independent claims 39, 48 and 49, relate to "receiving from a server computer system, state information relating to a prior interaction of [a] client computer system and server computer system". This is illustrated in Fig. 2 at steps 88 and 90 and discussed in the paragraph bridging pages 13 and 14. These claims are presented in method, apparatus and program product form, and do not include "means" language elements.

Independent claims 52, 61 and 62 relate to a server that will "select, in response to a request to provide an information handling capability by a client computer system, a service to be executed by said server computer system, from at least first and second services available to said server...", and then "executing ... code in [the] selected service." This is shown at step 74 of Fig. 2 and discussed at page 12. These claims are presented in method, apparatus and program product form, and do not include "means" language elements.

Grounds of Rejection

The grounds of rejection presented for review are

The Examiner's rejection of claims 15, 34, 49 and 62 under 35 U.S.C. §101 based upon the Examiner's assertion that a "program product is not tangible because it is software per se".

The Examiner's rejection of all of claims 1-64 as unpatentable over Taylor et al. combined with Kikuchi et al. As to each claim a rejection has been entered over the combination of Taylor et al. combined with Kikuchi et al. (NOTE: The Examiner's action states in the summary that claims "1-69" are rejected but there are only 64 claims and rejections have been specifically identified for only claims 1-64.)

Argument

35 U.S.C. §101 Rejection

Applicant respectfully disagrees with the Examiner's rejection of claims 15, 34, 49 and 62 under 35 U.S.C. §101 based upon the Examiner's assertion that a "program product is not tangible because it is software per se". Each of the rejected claims clearly recites a "computer readable media" and therefore is not directed to "software per se" but rather is directed to media bearing executable code.

Prior Art Rejection

Applicant will first discuss the Taylor and Kikuchi prior art and then compare that prior art to the rejected claims.

Taylor

Taylor et al. is, at best, only marginally relevant to the present application. Taylor et al. discloses a "modular storage server architecture for retrieving data in response to user access requests. In particular, [Taylor] relates to a server architecture in which data is dynamically distributed over a plurality of disks, and data access requests are assigned to particular processors in order to provide good data access performance and server fault tolerance." Taylor, page 1, paragraph 0002.

Taylor has relevance to the present invention only in that Taylor's storage scheme might be usable to store information in a server of the kind that delivers executable code to clients. However, with respect to each of the claimed aspects outlined above, Taylor does not disclose the claimed concepts, as will be detailed below.

Kikuchi

Kikuchi discloses a packet monitoring system having several components that interoperate to monitor the use of a wired or wireless communication network. As best seen in Kikuchi's Fig. 5, this service involves multiple devices / servers which log-in the user, determine an appropriate monitoring to perform, and analyze subsequent communications..

Independent Claims 1, 12 and 15

Comparing Taylor and Kikuchi to the language of these claims currently under rejection, a number of striking differences are evident.

First, with respect to claims 1, 12 and 15, these claims relate to a method performed "at a server", or to "a server" per se or a program product "for a server", in which the server will "identify[] factors relevant to provision of [an] information handling capability by [a] client computer", then "select[] one of at least a first and a second service to be uploaded" and finally, "deliver[the] selected service to [the] client computer". Neither Taylor nor Kikuchi disclose anything like this.

The Examiner has cited to Page 8, paragraph 0077 of Taylor, which describes a server that may store "trick play", i.e., fast forward or rewind, video information, as well as normal "play" video information. The Examiner apparently has cited this because it at least shows two types of information are delivered by the server to a client. However, as the Examiner admits, Taylor is not disclosing that different executable code is being delivered to a client, nor is Taylor disclosing selection between different executable code services based upon client factors.

The Examiner posits that these gaps are filled by Kikuchi. But Kikuchi does not disclose delivery of different code services either. Kikuchi discloses that communications are to be monitored, if appropriate, for a user. This monitoring does not constitute or relate to delivering different executable code to a client based upon the nature of the client, but rather only involves monitoring what communications the client requests and particularly, their amount, in order to ensure appropriate payments are made. While it is possible that a user may receive executable code through the Kokachi monitoring system, there is no “selecting” of code by the Kokachi system nor is there “delivering” of code by the Kokachi system has selected.

A combination of Taylor and Kikuchi would not, therefore, lead to the invention of independent claims 1, 12 and 15. At best, this combination would lead to the Kikuchi system being used to monitor data stored and delivered by the Taylor server, not the formation of and selection between more than one set of executable code, which neither reference suggests.

The Examiner has previously cited page 2, paragraph 0024 of Taylor for the proposition that Taylor’s server retrieves requested data from the disk drives in the server, and outputs it for distribution. This may be so, but it is irrelevant. Taylor has no function to retrieve and output information that is different based upon a client’s profile or functionality as claimed.

While these clear distinctions of independent claims 1, 12 and 15 obviate any possible rejection of claims 1-19, some additional comments on the Examiner's rejections of dependent claims are in order.

Regarding claims 3, 14 and 17, the Examiner has misstated the disclosure of Kikuchi. There is no disclosure at paragraph 0037 of Kokachi of a server using any factors to determine a service to upload, nor is there any disclosure of the particular factors of "operating system", "bandwidth", "date and/or time of day", "cost" or "location" — Kikuchi merely monitors what is uploaded, rather than selecting it, as noted.

Regarding the Examiner's remarks on claims 4, 23, 40 and 53, and 5, 24, 41 and 54, Applicant is at a loss to find any discussion of brokerage information at Kikuchi col. 7 lines 1-15 or col. 6, lines 65-67.

Regarding the Examiner's remarks on claims 6, 25, 42 and 55 and 7, 26, 43 and 56, and 8, 27, 44 and 57, Applicant cannot see any mention of real estate or chattel property, or an automobile, in Taylor at page 6, paragraph 0056.

Regarding the Examiner's remarks on claims 10, 29, 46 and 59, and 11, 30, 47 and 60, Applicant cannot see any mention of financial information or transportation service information in Taylor page 6, paragraph 0056.

Independent Claims 20, 31 and 34

Regarding claims 20, 31 and 34, the Examiner's rejection is again based upon a combination of Kikuchi and Taylor, relying upon that part of Kikuchi at paragraph 0037 that describes a monitoring function, and relying upon Taylor for showing "performing an analysis of usage of said information handling capability by said client computer system to determine whether said executable code ought to be retained in storage...". Applicant submits this rejection is clearly in error.

Firstly, Kikuchi only describes monitoring a client's communications use, not the client's use of storage. Second, Taylor at page 7, paragraph 0073 describes only storage management in a server, not in a client. Thus, Kikuchi and Taylor simply do not relate to the claimed invention.

Responding to these points, the Examiner's Final Rejection cited Taylor at page 2, paragraph 0050, for disclosing a server that evaluates "provisioning, QoS and/or bandwidth availability information to responsively determine an appropriate latency masking and/or client message strategy". This may be so but it is irrelevant – none of these factors relate to whether the client should retain code or discard it, or even relate to retention by the client at all.

As this disposes of the Examiner's rejection of the independent claims 20, 31 and 34, all of claims 20-38 are clearly allowable. However, with respect to the Examiner's rejection of dependent claims 21, 32 and 35, and 22, 33 and 36, the Examiner again relies on Taylor's paragraph 0077 which does not relate to evaluating use/disuse or connectivity at a client computer, and thus these rejections are inappropriate.

Independent claims 39, 48 and 49

As to claims 39, 48 and 49, the Examiner's rejection relies again upon Kikuchi's disclosure at paragraph 0037 for showing communications functions, and relies upon Taylor for disclosing "receiving from a server computer system, state information relating to a prior interaction of [a] client computer system and server computer system". While Kikuchi does show communications between a user and a server, there is no mention that this includes

receiving "information relating to a prior interaction of [a] client computer system and server computer system"; rather, Kikuchi is silent as to the specific information that may be retrieved. Furthermore, Taylor page 7, paragraph 0073 in no way relates to a client's management of its states, but rather with the storage of data in primary or secondary storage of a server.

The Examiner, responding in his Final Rejection, has quoted from Taylor at page 5, paragraph 0052, to the effect that Taylor's server "implements a level of filtering of received content to a server-specific evaluation of the importance of the pushed content made according to the needs and/or preferences of the subtended customers" This may be so, but it is not relevant because it does not relate to the saving of state information by the server or delivery of state information from the server to the clients – it is not about state information but rather about prioritization of data being pushed to clients – a completely different issue.

Kikuchi and Taylor are thus clearly distinct from independent claims 39, 48 and 49, and Applicant submits that all of claims 39-51 are allowable.

Independent Claims 52, 61 and 62

The Examiner's rejection of independent claims 52, 61 and 62 also rely upon Kikuchi's discussion at paragraph 0037 and upon Taylor paragraph 0073. Kikuchi does not disclose a server that will "select, in response to a request to provide an information handling capability by a client computer system, a service to be executed by said server computer system, from at least first and second services available to said server..." (Emphasis added). The concept of a server selecting what to execute is simply not found in Kikuchi. Taylor paragraph 0073

relates only to the management of data between primary and secondary storage on a server, not to selection and delivery of different services for a client. As Kikuchi and Taylor are thus clearly distinct from independent claims 52, 61 and 62, Applicant submits that all of claims 52-64 are allowable.

Conclusion

Accordingly, Applicant submits that the Examiner's rejection is in error and a reversal of the rejection and allowance of the claims is therefore requested.

Respectfully submitted,
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Claim Appendix

1. (Original) A method of providing an information handling capability to a client computer system in a networked computer system comprising client and server computer systems, comprising the following steps performed at a server computer system:

identifying factors relevant to provision of said information handling capability by said client computer,

selecting one of at least a first and a second service to be uploaded to said client computer based upon said factors, said first and second services comprising different executable code for providing said information handling capability, and

delivering said selected service to said client computer system, so that said information handling capability may be realized by said client computer upon execution of code within said selected service at said client computer system.

2. (Original) The method of claim 1 wherein said services comprise data in addition to executable code.

3. (Original) The method of claim 1 wherein said factors comprise one or more of:

the operating system used by said server computer system,

the operating system used by said client computer system,

the bandwidth of a communications connection between said client and server computer system,

the date and/or time of day,

the cost of a communications connection between said client and server computer system, and

the location of said client and/or server computer system.

4. (Original) The method of claim 1 wherein said information handling capability comprises providing brokerage information to a user of said client computer system

5. (Original) The method of claim 4 wherein said brokerage information comprises product information and pricing.

6. (Original) The method of claim 5 wherein said product is real estate property.

7. (Original) The method of claim 5 wherein said product is chattel property.

8. (Original) The method of claim 7 wherein said product is an automobile.

9. (Original) The method of claim 1 wherein said information handling capability comprises providing scheduling information to a user of said client computer system

10. (Original) The method of claim 1 wherein said information handling capability comprises providing financial information to a user of said client computer system

11. (Original) The method of claim 1 wherein said information handling capability comprises providing transportation service information to a user of said client computer system

12. (Original) A server in a networked computer system comprising client and server computer systems, said server comprising

a processor,

a communications interface for connecting to a client computer system,

and

storage for executable code,

said processor executing said executable code to provide an information handling capability to a client computer system by the steps of identifying factors relevant to provision of said information handling capability by said client computer, selecting one of at least a first and a second service to be uploaded to said client computer based upon said factors, said first and second services comprising different executable code for providing said information handling capability, and delivering said selected service to said client computer system, so that said information handling capability may be realized by said client computer upon execution of code within said selected service at said client computer system.

13. (Original) The server of claim 12 wherein said services comprise data in addition to executable code.

14. (Original) The server of claim 12 wherein said factors comprise one or more of:

- the operating system used by said server computer system,
- the operating system used by said client computer system,
- the bandwidth of a communications connection between said client and server computer system,
- the date and/or time of day,
- the cost of a communications connection between said client and server computer system, and
- the location of said client and/or server computer system.

15. (Original) A program product for a server in a networked computer system comprising client and server computer systems, the program product comprising executable code for providing an information handling capability to a client computer systems by the steps of identifying factors relevant to provision of said information handling capability by said client computer, selecting one of at least a first and a second service to be uploaded to said client computer based upon said factors, said first and second services comprising different executable code for providing said information handling capability, and delivering said selected service to said client computer system, so that said information handling

capability may be realized by said client computer upon execution of code within said selected service at said client computer system, and
a computer-readable media storing the executable code.

16. (Original) The program product of claim 15 wherein said services comprise data in addition to executable code.

17. (Original) The program product of claim 15 wherein said factors comprise one or more of:

- the operating system used by said server computer system,
- the operating system used by said client computer system,
- the bandwidth of a communications connection between said client and server computer system,
- the date and/or time of day,
- the cost of a communications connection between said client and server computer system, and
- the location of said client and/or server computer system.

18. (Original) The program product of claim 15 wherein said media comprises a transmission type media.

19. (Original) The program product of claim 15 wherein said media comprises a storage media.

20. (Original) A method of providing an information handling capability to a client computer system in a networked computer system comprising client and server computer systems, comprising the following steps executed at a client computer system:

storing executable code for providing said information handling capability,

performing an analysis of usage of said information handling capability by said client computer system to determine whether said executable code ought to be retained in storage by said client computer system, and

in response to a determination that said executable code ought not be retained by said client computer system, unloading said executable code from storage in said client computer system.

21. (Original) The method of claim 20 wherein said analysis comprises determining a period of disuse of said information handling capability by said client computer system.

22. (Original) The method of claim 20 wherein said analysis comprises determining the presence of a connection between said client computer system and a server computer system involved in provision of said information handling capability.

23. (Original) The method of claim 20 wherein said information handling capability comprises providing brokerage information to a user of said client computer system

24. (Original) The method of claim 23 wherein said brokerage information comprises product information and pricing.

25. (Original) The method of claim 24 wherein said product is real estate property.

26. (Original) The method of claim 24 wherein said product is chattel property.

27. (Original) The method of claim 26 wherein said product is an automobile.

28. (Original) The method of claim 20 wherein said information handling capability comprises providing scheduling information to a user of said client computer system

29. (Original) The method of claim 20 wherein said information handling capability comprises providing financial information to a user of said client computer system

30. (Original) The method of claim 20 wherein said information handling capability comprises providing transportation service information to a user of said client computer system

31. (Original) A client computer system in a networked computer system comprising client and server computer systems, comprising:

- a processor,
- storage for executable code, and
- a communications interface for connecting to a server computer system,

said processor executing said executable code to provide an information handling capability in conjunction with a server computer system, and further performing an analysis of usage of said information handling capability by said client computer system to determine whether said executable code ought to be retained in storage by said client computer system, and, in response to a determination that said executable code ought not be retained by said client computer system, unloading said executable code from storage in said client computer system.

32. (Original) The client computer system of claim 31 wherein said analysis comprises determining a period of disuse of said information handling capability by said client computer system.

33. (Original) The client computer system of claim 31 wherein said analysis comprises determining the presence of a connection between said client

computer system and a server computer system involved in provision of said information handling capability.

34. (Original) A program product for a client in a networked computer system comprising client and server computer systems, the program product comprising executable code for causing a client computer system to provide an information handling capability, and executable code for performing an analysis of usage of said information handling capability by said client computer system to determine whether said executable code ought to be retained in storage by said client computer system, and, in response to a determination that said executable code ought not be retained by said client computer system, unloading said executable code from storage in said client computer system, and a computer-readable media storing the executable code.

35. (Original) The program product of claim 34 wherein said analysis comprises determining a period of disuse of said information handling capability by said client computer system.

36. (Original) The program product of claim 34 wherein said analysis comprises determining the presence of a connection between said client computer system and a server computer system involved in provision of said information handling capability.

37. (Original) The program product of claim 34 wherein said media comprises a transmission type media.

38. (Original) The program product of claim 34 wherein said media comprises a storage media.

39. (Original) A method of providing an information handling capability to a client computer system in a networked computer system comprising client and server computer systems, comprising the following steps executed at a client computer system:

receiving from a server computer system, executable code for providing said information handling capability,

receiving from a server computer system, state information relating to a prior interaction of said client computer system and server computer system,

utilizing said state information while executing said executable code at said client to provide said information handling capability.

40. (Original) The method of claim 39 wherein said information handling capability comprises providing brokerage information to a user of said client computer system

41. (Original) The method of claim 40 wherein said brokerage information comprises product information and pricing.

42. (Original) The method of claim 41 wherein said product is real estate property.
43. (Original) The method of claim 41 wherein said product is chattel property.
44. (Original) The method of claim 43 wherein said product is an automobile.
45. (Original) The method of claim 39 wherein said information handling capability comprises providing scheduling information to a user of said client computer system
46. (Original) The method of claim 39 wherein said information handling capability comprises providing financial information to a user of said client computer system
47. (Original) The method of claim 39 wherein said information handling capability comprises providing transportation service information to a user of said client computer system
48. (Original) A client computer system for providing an information handling capability in a networked computer system comprising client and server computer systems, comprising
a processor,

a communications interface for connecting to a server computer system,
and

storage for executable code,

said processor executing said executable code to provide said
information handling capability, and to receive from a server computer system,
state information relating to a prior interaction of said client computer system
and server computer system, and to use said state information while executing
said executable code to provide said information handling capability.

49. (Original) A program product for a client in a networked computer system
comprising client and server computer systems, the program product comprising
executable code for receiving from a server computer system further
executable code for providing an information handling capability, and for
receiving from a server computer system, state information relating to a prior
interaction of said client computer system and server computer system, and for
using utilizing said state information while executing said executable code at
said client to provide said information handling capability, and
a computer-readable media storing the executable code.

50. (Original) The program product of claim 49 wherein said media comprises a
transmission type media.

51. (Original) The program product of claim 49 wherein said media comprises a
storage media.

52. (Original) A method of providing an information handling capability to a client computer system in a networked computer system comprising client and server computer systems, comprising the following steps executed at a server computer system:

selecting, in response to a request to provide an information handling capability by a client computer system, a service to be executed by said server computer system, from at least first and second services available to said server computer system for providing said information handling capability, and

executing said executable code in said selected service to provide said information handling capability.

53. (Original) The method of claim 52 wherein said information handling capability comprises providing brokerage information to a user of said client computer system

54. (Original) The method of claim 53 wherein said brokerage information comprises product information and pricing.

55. (Original) The method of claim 54 wherein said product is real estate property.

56. (Original) The method of claim 54 wherein said product is chattel property.

57. (Original) The method of claim 54 wherein said product is an automobile.

58. (Original) The method of claim 52 wherein said information handling capability comprises providing scheduling information to a user of said client computer system

59. (Original) The method of claim 52 wherein said information handling capability comprises providing financial information to a user of said client computer system

60. (Original) The method of claim 52 wherein said information handling capability comprises providing transportation service information to a user of said client computer system

61. (Original) A server providing an information handling capability to a client computer system in a networked computer system comprising client and server computer systems, comprising:

a processor,

a communications interface for connecting to a client computer system,

and

storage for executable code,

said processor executing said executable code to select, in response to a request to provide an information handling capability by a client computer system, a service to be executed by said server computer system, from at least first and second services available to said server computer system for providing

said information handling capability, and then executing executable code in the selected service.

62. (Original) A program product for a server in a networked computer system comprising client and server computer systems, the program product comprising executable code for selecting, in response to a request to provide an information handling capability by a client computer system, a service to be executed by said server computer system, from at least first and second services available to said server computer system for providing said information handling capability, and executing said executable code in said selected service to provide said information handling capability, and
a computer-readable media storing the executable code.

63. (Original) The program product of claim 62 wherein said media comprises a transmission type media.

64. (Original) The program product of claim 62 wherein said media comprises a storage media.

Evidence Appendix

None.

Related Proceedings Appendix

None.